

CLAIMS

What is claimed is:

1. A method of treating heart failure and improving cardiac function by administering stem cell products to a heart in need of treatment, whereby the stem cells products increase cardiac function thereby treating heart failure and improving cardiac function.
2. The method according to claim 1, wherein said administering step includes administering the stem cell products in a method selected from the group consisting essentially of intravenously, intracoronary, and directly to the heart.
3. A therapeutic for treating heart failure, said therapeutic comprising stem cell products capable of delivery to the heart.
4. The therapeutic according to claim 3, wherein said stem cell products are selected from the group consisting essentially of VEGF, HGF, BDNF, NGF, BDNF, stat5, CNTF, NGF, bFGF, hypoxia-inducible factor-1-alpha, fibroblast growth factor, pharmacologic agents including immunosuppressants such as cyclosporin A, anti-inflammation agents such as dexamethasone, anti-angiogenic factors, acidic and basic fibroblast growth factors, vascular endothelial growth factor, hif-1, epidermal growth factor, transforming growth factor-alpha and beta, platelet-derived endothelial growth factor, platelet-derived growth factor, tumor necrosis factor .alpha., hepatocyte growth factor and insulin-like growth factor; growth factors; cell cycle inhibitors including CDK inhibitors; anti-restenosis agents, including p15, p16, p18, p19, p21, p27, p53, p57, Rb, nFkB and E2F decoys, thymidine kinase ("TK"), anti-glial agents, and anti-mitotic factors.
5. The therapeutic according to claim 4, wherein said stem cell product is stat5.
6. A method of enriching or regenerating damaged myocardium by administering stem cell products to damaged myocardium.

7. The method according to claim 6, wherein said administering step includes administering the stem cell products in a method selected from the group consisting essentially of intravenously, intracoronary, and directly to the heart.
8. Stem cell products for use in treating heart failure.
9. The stem cell products according to claim 8, wherein said products are selected from the group consisting essentially of VEGF, HGF, BDNF, NGF, bFGF, and hypoxia-inducible factor-1-alpha.
10. The stem cell products according to claim 9, wherein said stem cell product is stat5.
11. A heart treated with stem cell products, said stem cell products restoring heart function.
12. A composition for enriching and regenerating damaged myocardium, said composition comprising stem cell products in a pharmaceutically acceptable carrier.
13. A composition for causing the expression of stem cell products.
14. A method of creating stem cells and stem cell products for use in treating heart failure and improving cardiac function by enriching medium containing stem cells by exposing the medium to hypoxia.